

## REVISED VERSION

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
26 May 2005 (26.05.2005)

PCT

(10) International Publication Number  
**WO 2005/048221 A1**

(51) International Patent Classification<sup>7</sup>: **G09F 9/00**,  
H05B 33/14, H01L 29/786, 21/288, 27/088

(21) International Application Number:  
PCT/JP2004/016814

(22) International Filing Date:  
5 November 2004 (05.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2003-386020 14 November 2003 (14.11.2003) JP

(71) Applicant (for all designated States except US): SEMICONDUCTOR ENERGY LABORATORY CO., LTD. [JP/JP]; 398, Hase, Atsugi-shi, Kanagawa 2430036 (JP).

(72) Inventors; and

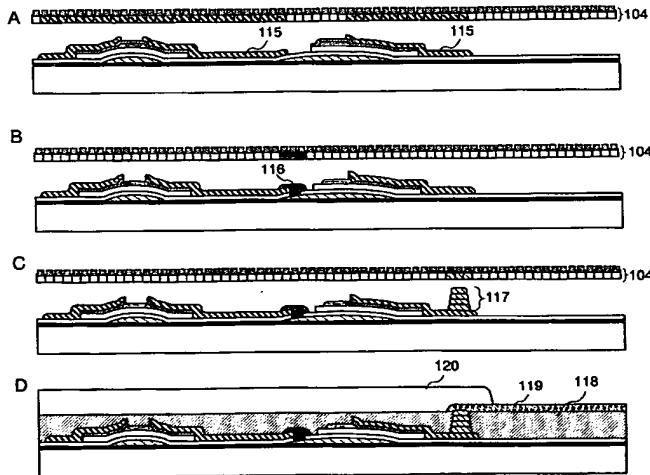
(75) Inventors/Applicants (for US only): YAMAZAKI, Shunpei [JP/JP]; c/o SEMICONDUCTOR ENERGY

LABORATORY CO., LTD., 398, Hase, Atsugi-shi, Kanagawa 2430036 (JP). MAEKAWA, Shinji [JP/JP]; c/o SEMICONDUCTOR ENERGY LABORATORY CO., LTD., 398, Hase, Atsugi-shi, Kanagawa 2430036 (JP). FUJII, Gen [JP/JP]; c/o SEMICONDUCTOR ENERGY LABORATORY CO., LTD., 398, Hase, Atsugi-shi, Kanagawa 2430036 (JP). KUWABARA, Hideaki [JP/JP]; c/o SEMICONDUCTOR ENERGY LABORATORY CO., LTD., 398, Hase, Atsugi-shi, Kanagawa 2430036 (JP). TACHIMURA, Yuko [JP/JP]; c/o SEMICONDUCTOR ENERGY LABORATORY CO., LTD., 398, Hase, Atsugi-shi, Kanagawa 2430036 (JP).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

*[Continued on next page]*

(54) Title: DISPLAY DEVICE AND METHOD FOR FABRICATING THE SAME



WO 2005/048221 A1

(57) Abstract: It is an object of the invention to provide a display device which can be manufactured by a simplified manufacturing process by which the efficiency in the use of material is improved. It is a further object of the invention to provide a manufacturing method of the display device. It is another object of the invention to provide a fabrication technology for improving adhesion of a pattern. In view of the above problems, according to the present invention, a pattern is formed by a droplet discharge method. Particularly in the invention, base pretreatment is performed before/after a pattern is formed by a droplet discharge method. As a result of such base pretreatment, adhesion of a pattern can be improved, and the pattern may be made finer.



(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the revised international search report: 11 August 2005

(15) Information about Correction:  
see PCT Gazette No. 32/2005 of 11 August 2005, Section II

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*